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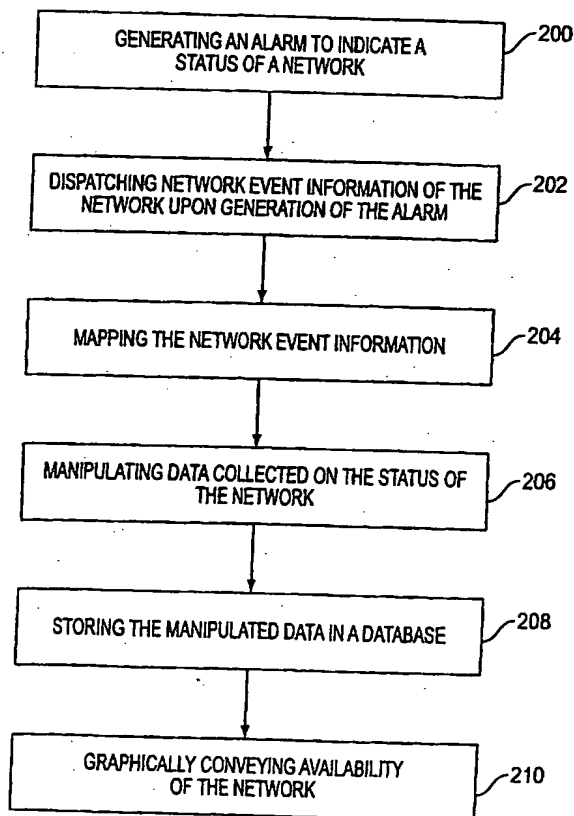
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(81) Designated States (*national*): AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZW.

[Continued on next page]

(54) Title: **A METHOD FOR CONTROLLING DATA COLLECTION, MANIPULATION AND STORAGE ON A NETWORK WITH SERVICE ASSURANCE CAPABILITIES**



(57) Abstract: A system, method an article of manufacture are provided for controlling the collection, manipulation and storage of network performance data and network event data of a network with service assurance capabilities. Upon the receipt of an activation signal, a signal is transmitted to initiate the retrieving of network performance data and network event data generated from at least one network monitor. Such network monitor is adapted for monitoring a network system and the relocating of the data into a common directory. A signal is then transmitted to initiate the manipulation of the data and the loading of the manipulated data into a database.

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# INTERNATIONAL SEARCH REPORT

National Application No

PCT/US 00/35392

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 H04L12/26 H04L12/24

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)  
EPO-Internal, WPI Data, PAJ, INSPEC, IBM-TDB

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 849 909 A (NORTHERN TELECOM LTD) 24 June 1998 (1998-06-24)	
Y	abstract  column 7, line 7 - line 26 column 8, line 4 - line 13 column 8, line 39 - column 10, line 54 claims 1-17	1-3, 9-11, 17-19 4-8, 12-16,20
X	US 5 878 420 A (DE LA SALLE PIERRE) 2 March 1999 (1999-03-02)	
	abstract column 7, line 17 - line 21 column 9, line 49 - line 67 column 13, line 8 - line 14 figures 2,4	1-3, 9-11, 17-19

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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
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- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*G\* document member of the same patent family

Date of the actual completion of the international search

23 November 2001

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# INTERNATIONAL SEARCH REPORT

International Application No  
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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category \* Citation of document, with indication, where appropriate, of the relevant passages

Relevant to claim No.

X

WO 98 26541 A (3COM CORP)  
18 June 1998 (1998-06-18)

1-3,  
9-11,  
17-19

abstract  
page 9, line 13 - line 22  
page 29, line 25 -page 30, line 18  
claim 1  
figure 8

X

LARSEN A K: "MASTERING DISTRIBUTED  
DOMAINS VIA THE WEB"  
DATA COMMUNICATIONS,US,MCGRAW HILL. NEW  
YORK,  
vol. 25, no. 7, 21 May 1996 (1996-05-21),  
page 36,38 XP000587588  
ISSN: 0363-6399  
the whole document

1-3,  
9-11,  
17-19

Y

US 5 832 224 A (CHAPMAN KENNETH W ET AL)  
3 November 1998 (1998-11-03)  
column 30, line 38 - line 50

4-7,  
12-15,20

A

FR 2 758 897 A (INFOVISTA SA)  
31 July 1998 (1998-07-31)  
abstract  
page 15, line 29 -page 16, line 2  
figures 1,3,4

1,9,17

A

LARRY WALL ET AL: "Programming Perl"  
September 1996 (1996-09) , O'REILLY &  
ASSOCIATES XP002170280  
pag 15, String Operators  
pag 217, sort

5,6,13,  
14

Y

T. CHRISTIANSEN, N. TORKINGTON: "Perl  
Cookbook"  
September 1998 (1998-09) , O'REILLY &  
ASSOCIATES XP002170281  
pag 115-120  
pag 322-326  
Chapter 14

8,16

A

CURTIS PRESTON: "Re: Oracle database  
Backup"  
INTERNET NEWSGROUP, 'Online! XP002170279  
comp.databases.oracle.tools  
the whole document

8,16

A

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# INTERNATIONAL SEARCH REPORT

national Application No

PCT/US 00/35392

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>WO 97 44937 A (CABLETRON SYSTEMS INC)  27 November 1997 (1997-11-27)  abstract  page 1, line 35 -page 2, line 19  page 3, line 22 - line 28  page 6, line 9 - line 32  page 7, line 14 -page 8, line 16  page 9, line 10 - line 17  page 10, line 10 -page 11, line 10  figures 1,3</p>	21-26
X	<p>EP 0 909 056 A (HEWLETT PACKARD CO)  14 April 1999 (1999-04-14)  abstract  paragraph '0002! - paragraph '0004!  paragraph '0011!  paragraph '0018! - paragraph '0024!  paragraph '0065! - paragraph '0068!  paragraph '0071!  figure 1</p>	21-26
X	<p>EP 0 810 755 A (HEWLETT PACKARD CO)  3 December 1997 (1997-12-03)  abstract  column 1, line 45 -column 2, line 22  column 2, line 30 - line 32  column 3, line 16 - line 23  column 8, line 41 -column 9, line 5  column 13, line 27 -column 14, line 27</p>	21-23, 26
A	<p>US 5 751 914 A (COLEY BRETT ANGUS ET AL)  12 May 1998 (1998-05-12)  abstract  column 1, line 1 - line 15  column 1, line 55 - line 62  column 3, line 38 -column 4, line 4  column 4, line 31 - line 50  column 5, line 3 - line 20  column 3, line 53 - line 59  column 8, line 6 - line 50</p>	21-26
A	<p>US 5 655 081 A (BONNELL DAVID N ET AL)  5 August 1997 (1997-08-05)  abstract  column 7, line 14 - line 31</p>	22, 26
X	<p>US 5 867 483 A (TROUTMAN ROBERT ET AL)  2 February 1999 (1999-02-02)  abstract  column 13, line 61 -column 15, line 45;  figures 9-17</p>	27-31

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national Application No  
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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>EP 0 957 432 A (IBM) 17 November 1999 (1999-11-17) abstract paragraph '0005! paragraph '0031! - paragraph '0032! paragraph '0046! - paragraph '0047! paragraph '0082! - paragraph '0083! paragraph '0087! - paragraph '0088! paragraph '0091! figures 2,5,7,8,12,13</p>	27-32
Y	<p>US 5 887 139 A (MADISON JR CARL T ET AL) 23 March 1999 (1999-03-23) abstract column 1, line 55 - column 2, line 31 column 5, line 1 - line 42; figure 7</p>	27-32
Y	<p>EP 0 673 135 A (BRITISH TELECOMM) 20 September 1995 (1995-09-20) abstract</p>	27-32

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 00/35392

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-20

A system, a method, and a computer program for initiating the retrieval of network performance data

2. Claims: 21-26

A method for correlating network events

3. Claims: 27-32

A method for compiling reports



# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 00/35392

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0849909	A	24-06-1998	US 5974237 A CA 2221541 A1 EP 0849909 A2 JP 10233773 A	26-10-1999 18-06-1998 24-06-1998 02-09-1998
US 5878420	A	02-03-1999	US 6144961 A	07-11-2000
WO 9826541	A	18-06-1998	US 6085243 A AU 5601198 A EP 0956680 A1 GB 2335124 A WO 9826541 A1 US 5922044 A US 6009274 A US 6108782 A WO 9843170 A1	04-07-2000 03-07-1998 17-11-1999 08-09-1999 18-06-1998 13-07-1999 28-12-1999 22-08-2000 01-10-1998
US 5832224	A	03-11-1998	US 5608907 A US 5345587 A AT 160034 T AU 3980093 A AU 3980193 A AU 3980293 A AU 3980393 A AU 3980493 A AU 639416 B2 AU 4305289 A CN 1044175 A DE 68928433 D1 DE 68928433 T2 EP 0441798 A1 EP 0767427 A2 JP 2277153 A JP 2230847 A JP 3062155 A JP 6502505 T WO 9003005 A1 US 5475838 A US 5557796 A CN 1043810 A CN 1044176 A CN 1045656 A CN 1044174 A JP 2236767 A CN 1044719 A	04-03-1997 06-09-1994 15-11-1997 19-08-1993 19-08-1993 05-08-1993 19-08-1993 05-08-1993 29-07-1993 02-04-1990 25-07-1990 11-12-1997 16-04-1998 22-03-1990 09-04-1997 13-11-1990 13-09-1990 18-03-1991 17-03-1994 22-03-1990 12-12-1995 17-09-1996 11-07-1990 25-07-1990 26-09-1990 25-07-1990 19-09-1990 15-08-1990
FR 2758897	A	31-07-1998	FR 2758897 A1 AT 206540 T DE 69801896 D1 EP 0954787 A1 WO 9833122 A1 US 6055493 A	31-07-1998 15-10-2001 08-11-2001 10-11-1999 30-07-1998 25-04-2000
WO 9744937	A	27-11-1997	US 6131112 A AU 720079 B2 AU 3005097 A CA 2254141 A1 EP 0898822 A2	10-10-2000 25-05-2000 09-12-1997 27-11-1997 03-03-1999

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 00/35392

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9744937 A		WO 9744937 A2	27-11-1997
EP 0909056 A	14-04-1999	US 6061723 A	09-05-2000
		EP 0909056 A2	14-04-1999
		JP 11184781 A	09-07-1999
EP 0810755 A	03-12-1997	EP 0810755 A2	03-12-1997
		JP 10093654 A	10-04-1998
		US 6189038 B1	13-02-2001
		US 6012095 A	04-01-2000
US 5751914 A	12-05-1998	NONE	
US 5655081 A	05-08-1997	NONE	
US 5867483 A	02-02-1999	EP 0976212 A1	02-02-2000
		WO 9821845 A1	22-05-1998
EP 0957432 A	17-11-1999	US 6070190 A	30-05-2000
		CN 1238495 A	15-12-1999
		EP 0957432 A2	17-11-1999
		JP 2000122943 A	28-04-2000
		TW 439028 B	07-06-2001
US 5887139 A	23-03-1999	AU 3809797 A	06-03-1998
		EP 0979467 A2	16-02-2000
		JP 2000516370 T	05-12-2000
		WO 9808153 A2	26-02-1998
EP 0673135 A	20-09-1995	EP 0673135 A1	20-09-1995
		US 5671408 A	23-09-1997